

Amendment to the Claims

Please cancel claims 34, 38-42 and 45-48 and amend claims 1, 4-9, 14-22, 25, 26, 28, 31-33, 35-37, 43, 44, 49-51, 56 and 57 as follows.

1. (Currently Amended) A method of treating an individual who has cancer comprising the steps of identifying said cancer as a cancer that comprises cancer cells that have a high rate of aerobic glycolysis, and subsequently administering to said individual a therapeutically effective amount of a composition selected from the group consisting of: an ATP citrate lyase inhibitor, and a tricarboxylate transporter inhibitor.
2. (Original) The method of claim 1 wherein said cancer is determined to be a cancer that comprises cancer cells that have a high rate of aerobic glycolysis by PET imaging.
3. (Original) The method of claim 1 wherein said cancer is determined to be a cancer that comprises cancer cells that have a high rate of aerobic glycolysis by PET imaging using ¹⁸fluoro-deoxyglucose.
4. (Currently Amended) The method of claim ~~1-3~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 1 mM.
5. (Currently Amended) The method of claim ~~1-3~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 0.1 mM.
6. (Currently Amended) The method of claim ~~1-3~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 50 μM.
7. (Currently Amended) The method of claim 1 ~~1-6~~ wherein said cancer comprises cancer cells that are not dependent on endogenously synthesized fatty acid.

8. (Currently Amended) The method of claim ~~1-7~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein ATP citrate lyase inhibitor is selected from the group consisting of compounds having a structure defined by one of the formulae or examples set forth in U.S. Patent No. 5,447,954 and (-)-hydroxycitrate.

9. (Currently Amended) The method of claim ~~1-7~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is SB-204990 shown in Figure 4.

10. (Original) A method of treating an individual identified as having cancer wherein said cancer comprises cells that are not dependent on endogenously synthesized fatty acid, said method comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor.

11. (Original) The method of claim 10 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis.

12. (Original) The method of claim 11 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging.

13. (Original) The method of claim 12 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging using ¹⁸fluoro-deoxyglucose.

14. (Currently Amended) The method of claim 10 ~~10-13~~ wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of a different anti-cancer compound.

15. (Currently Amended) The method of claim 10 ~~10-13~~ wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of anti-cancer radiation therapy.

16. (Currently Amended) A method of treating an individual identified as having cancer comprising ~~a the step~~ selected from the group consisting of:

administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in

greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 1 mM;
and,

administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor.

17. (Currently Amended) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 0.1 mM.

18. (Currently Amended) The method of claim 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 50 μ M.

19. (Currently Amended) The method of claims ~~16-18~~ 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said cancer comprises cells that are not dependent on endogenously synthesized fatty acid.

20. (Currently Amended) The method of claim ~~16-19~~ 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein ATP citrate lyase inhibitor is selected from the group consisting of compounds having a structure defined by one of the formulae or examples set forth in U.S. Patent No. 5,447,954.

21. (Currently Amended) The method of claim ~~16-20~~ 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said ATP citrate lyase inhibitor is SB-204990 shown in Figure 4.

22. (Currently Amended) The method of claim ~~16-21~~ 16 comprising the step of administering to said individual a therapeutically effective amount of an ATP citrate lyase inhibitor, wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis.

23. (Original) The method of claim 22 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging.
24. (Original) The method of claim 22 wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis by PET imaging using ¹⁸F-fluoro-deoxyglucose.
25. (Currently Amended) The method of claim ~~16-24~~ 16 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of a different anti-cancer compound.
26. (Currently Amended) The method of claim ~~16-24~~ 16 wherein said ATP citrate lyase inhibitor is administered in conjunction with administration of anti-cancer radiation therapy.
27. (Original) A method of inducing apoptosis in a cancer cell wherein said cancer comprises cells that are not dependent on endogenously synthesized fatty acid, comprising the step of delivering to said cancer cell an amount of an ATP citrate lyase inhibitor effective to induce apoptosis in said cell.
28. (Currently Amended) A method of inducing apoptosis in a cancer cell comprising a ~~the step selected from the group consisting of:~~
delivering to said cancer cell an amount of an ATP citrate lyase inhibitor effective to induce apoptosis in said cell; wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 1 mM; and
delivering to said cancer cell an amount of a tricarboxylate transporter inhibitor effective to induce apoptosis in said cell.
29. (Original) The method of claim 28 wherein said ATP citrate lyase inhibitor effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 0.1 mM.
30. (Original) The method of claim 29 wherein said ATP citrate lyase inhibitor is effective to induce apoptosis in greater than 50% of cells in an *in vitro* apoptosis assay at a concentration of less than 50 μM.

31. (Currently Amended) The method of claim ~~28~~ ~~28-30~~ wherein said cancer cell is a cancer cell that is not dependent on endogenously synthesized fatty acid.
32. (Currently Amended) The method of claim ~~28~~ ~~28-30~~ wherein ATP citrate lyase inhibitor is selected from the group consisting of compounds having a structure defined by one of the formulae or examples set forth in U.S. Patent No. 5,447,954
33. (Currently Amended) The method of claim ~~28~~ ~~28-32~~ wherein said ATP citrate lyase inhibitor is SB-204990 shown in Figure 4.
34. (Canceled)
35. (Currently Amended) The method of ~~claims 34~~ claim 16 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor, wherein said cancer comprises cells that are not dependent on endogenously synthesized fatty acid.
36. (Currently Amended) The method of claim ~~34-35~~ 16 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor, wherein said tricarboxylate transporter inhibitor is selected from the group consisting of: 1,2,3-benzenetricarboxylate, isocitrate, malate, phosphoenolpyruvate, n-butylmalonate, sulfhydryl reagents, diethyl pyrocarbonate, 2,3-butanedione, phenylglyoxal, pyridoxal, 5-phosphate dicarboxylates, succinate, malate, oxaloacetate, tricarboxylates isocitrate, tricarballylate and palmitoyl-CoA.
37. (Currently Amended) The method of claim ~~34-36~~ 16 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor, wherein said cancer is determined to be a cancer with cancer cells that have a high rate of aerobic glycolysis.
- 38-42. (Canceled)
43. (Currently Amended) The method of claim ~~42~~ 28 comprising the step of delivering to said cancer cell an amount of a tricarboxylate transporter inhibitor effective to induce apoptosis in said cell, wherein said cancer cell is a cancer cell that is not dependent on endogenously synthesized fatty acid.

44. (Currently Amended) The method of claim ~~42-43~~ 28 comprising the step of delivering to said cancer cell an amount of a tricarboxylate transporter inhibitor effective to induce apoptosis in said cell, wherein said tricarboxylate transporter inhibitor is selected from the group consisting of: 1,2,3-benzenetricarboxylate, isocitrate, malate, phosphoenolpyruvate, n-butylmalonate, sulfhydryl reagents, diethyl pyrocarbonate, 2,3-butanedione, phenylglyoxal, pyridoxal, 5-phosphate dicarboxylates, succinate, malate, oxaloacetate, tricarboxylates isocitrate, tricarballylate and palmitoyl-CoA.

45-48. (Canceled)

49. (Currently Amended) The method of claim ~~45-48~~ 1 comprising the step of administering to said individual a therapeutically effective amount of a tricarboxylate transporter inhibitor; wherein said tricarboxylate transporter inhibitor is selected from the group consisting of: 1,2,3-benzenetricarboxylate, isocitrate, malate, phosphoenolpyruvate, n-butylmalonate, sulfhydryl reagents, diethyl pyrocarbonate, 2,3-butanedione, phenylglyoxal, pyridoxal, 5-phosphate dicarboxylates, succinate, malate, oxaloacetate, tricarboxylates isocitrate, tricarballylate and palmitoyl-CoA.

50. (Currently Amended) The method of claim 1 comprising the step of further administering to said individual ~~45-50 wherein said tricarboxylate transporter inhibitor is administered in conjunction with administration of~~ a different anti-cancer compound.

51. (Currently Amended) The method of claim 1 comprising the step of further administering to said individual ~~45-50 wherein said tricarboxylate transporter inhibitor is administered in conjunction with administration of~~ anti-cancer radiation therapy.

52. (Original) A method of treating an individual who has been identified as having cancer comprising administering to said individual a therapeutically effective amount of a compound which inhibits the expression of ATP citrate lyase or tricarboxylate transporter.

53. (Original) The method of claim 54 wherein said cancer is a cancer that comprises cancer cells that have a high rate of aerobic glycolysis.

54. (Original) A method of identifying a compound with anticancer activity comprising the steps of: identifying a test compound as an inhibitor of ATP citrate lyase or

tricarboxylate transporter and performing an apoptosis assay to determine if said test compound induces apoptosis, wherein a test compound that is an inhibitor of ATP citrate lyase or tricarboxylate transporter and induces apoptosis is a compound with anticancer activity.

55. (Original) The method of claim 54 wherein said test compound is identified as an inhibitor of ATP citrate lyase or tricarboxylate transporter by performing an assay to determine if it inhibits activity of ATP citrate lyase or tricarboxylate transporter.

56. (Currently Amended) The method of claim 54 ~~54-55~~ wherein said test compound is an inhibitor of ATP citrate lyase.

57. (Currently Amended) The method of claim 54 ~~54-55~~ wherein said test compound is an inhibitor of tricarboxylate transporter.